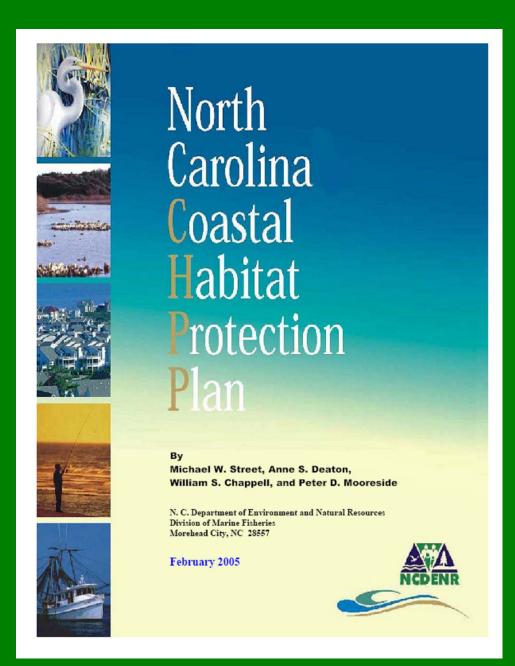
### CHPP 2010-2015

Protecting and Restoring Coastal Habitats

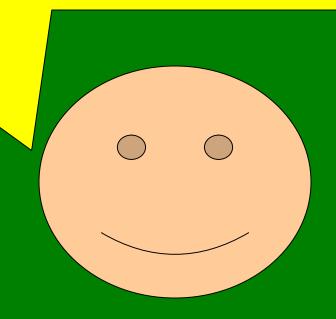


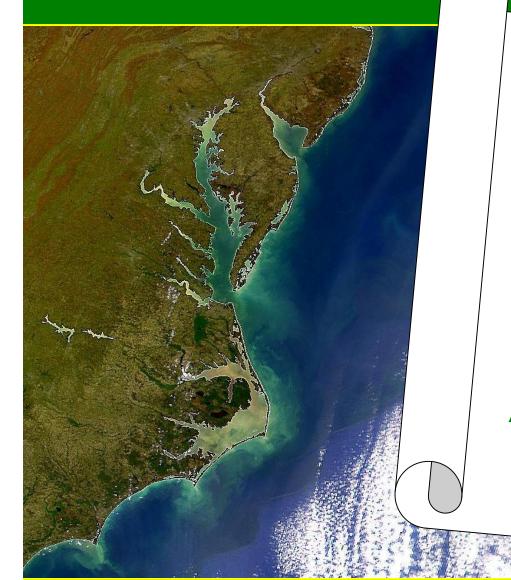
# Coastal Habitat Protection Plan Goal

"...long-term enhancement of coastal fisheries associated with each habitat"

(G.S. 143B-279.8)

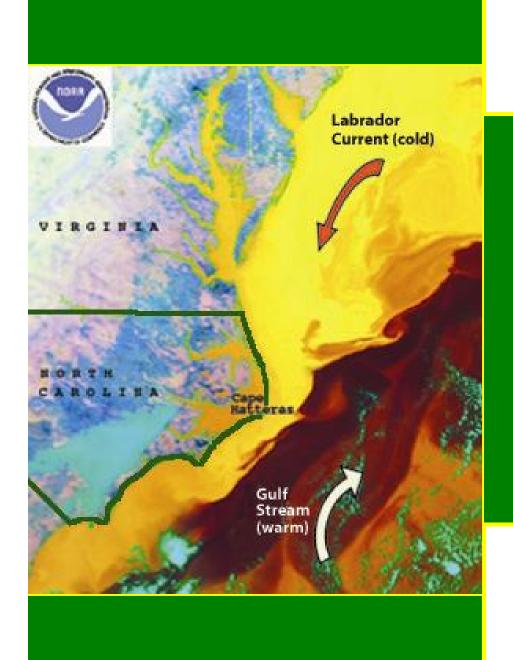
# Where have we been and where are we going?







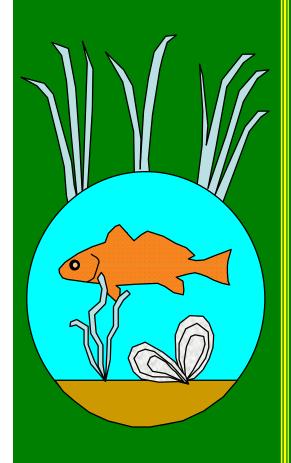
Largest system of estuaries & ocean waters on the Atlantic Coast



#### Cold Northern Current

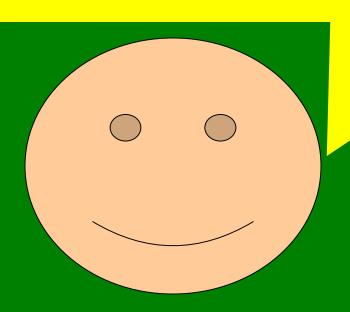
Bring many different species to N.C. waters

Warm Southern Current



interdependent fish habitats support North Carolina's coastal fisheries.

# What has been accomplished in these past 5 years?



# Six most significant accomplishments of the CHPP in the first five years:



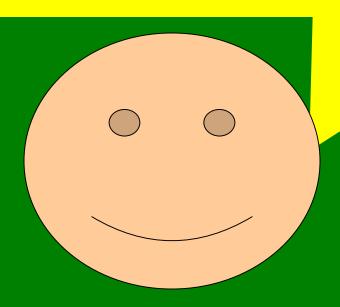
- 1. Interagency coordination and cooperation
- 2. Stormwater runoff management
- 3. Habitat mapping

#### **Accomplishments (cont.)**

- 4. Compliance monitoring
- 5. Oyster reef restoration
- 6. Beach nourishment management



# What will the updated CHPP look like and what will be added?



#### 6 Interdependent Fish Habitats



**WETLANDS** 



SOFT BOTTOM



SHELL BOTTOM



SUBMERGED AQUATIC VEGETATION



HARD BOTTOM



WATER COLUMN

### WETLANDS habitat



#### WETLANDS habitat -

Chapter reviewed by representatives from: DMF, DWQ, WRC, DCM, EEP, DFR, ECU, NCCF, NOAA

Updated/New Information:
Added sections include Sea
level rise/Climate change,
status and trends,
enhancement and
restoration activities, water
dependent development,
new management needs



#### WETLANDS habitat -

#### **Priority Needs:**

Mapping and monitoring of wetlands distribution and quality including narrow fringe wetlands

Refine management of estuarine shoreline stabilization to maintain nursery habitat in light of SLR

Coordinate conservation and restoration efforts with SHA assessments and area nominations



Status - DENR review complete

### SOFT BOTTOM habitat-



#### SOFT BOTTOM habitat

Chapter reviewed by representatives from: ECU, UNC-W, USACOE, DCM, NCCF

Updated/New Information: Sections added on Infrastructure, Off-road vehicles, Sea level rise/Climate change and new management needs

#### SOFT BOTTOM habitat

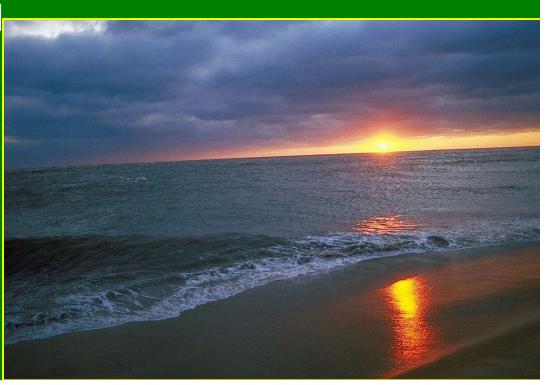
#### **Priority Needs:**

Update NC estuarine bathymetric maps

Implement Beach and Inlet Management Plan (BIMP)

Revise estuarine shoreline stabilization rules

# Status – awaiting DENR review



### SHELL BOTTOM habitat -



#### SHELL BOTTOM habitat —

Chapter reviewed by representatives from: DCM and DMF

Updated/New information:
Sections added on
designations, sea level
rise/climate change,
distribution, status and
trends, restoration and
enhancement efforts, new
management needs



#### SHELL BOTTOM habitat -



#### **Priority Needs:**

Refine program for determining status and trends in shell bottom resources

Continue shell bottom restoration efforts guided by spat dispersal and existing reefs

Status - Currently being reviewed by DENR

Monitor the effects of endocrine disruptor compounds on shell bottom resources

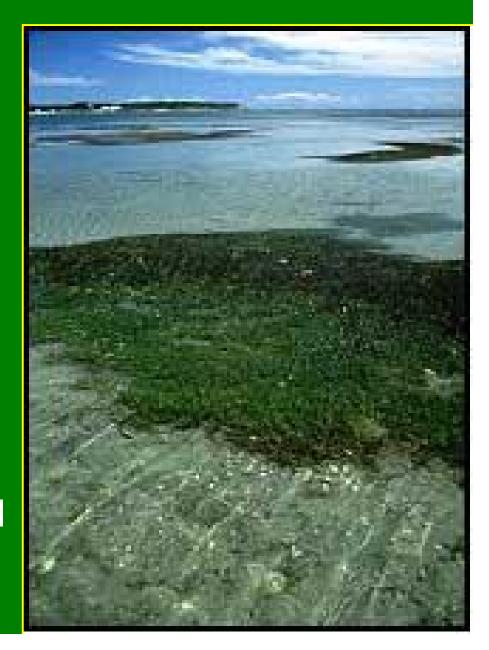
## SUBMERGED AQUATIC VEGETATION (SAV) habitat —



#### SAV habitat -

Chapter reviewed by: DWQ, DMF, DCM, NCDOT, NOAA

**Updated/New information:** Sections added on Sea Level rise/Climate change, revised definition of SAV, research on habitat requirements for SAV in NC, new research on modeling suitable/potential SAV habitat, new management needs



#### SAV habitat -



Status - Awaiting DENR review

#### **Priority needs:**

Complete delineation of SAV imagery and produce a map

Develop a comprehensive monitoring program to determine trends

Initiate monitoring of SAV indicators



## HARD BOTTOM habitat —

#### HARD BOTTOM habitat -

Chapter reviewed by representatives from: DCM and DMF

#### <u>Updated/New Information</u>:

Sections added on nonnative/invasive/nuisance species, designated areas, sea level rise/climate change, distribution and infrastructure, management needs and accomplishments



#### HARD BOTTOM habitat —

Priority Needs: Establish baseline data with monitoring of the extent and quality of ocean hard bottom areas

Monitor water quality trends in bottom waters of the coastal ocean specifically looking for EDCs

Status - Currently being

reviewed by DENR



### WATER COLUMN habitat



#### WATER COLUMN habitat

Chapter reviewed by representatives from: DWQ, DCM, DEH-SS, USGS, NCSU, USFWS, ECU, UNC-IMS, Duke, UNC-W

#### **Updated/New Information:**

Sections added or revised include Sea level rise/climate change, endocrine disruptors, new designations, restoration and enhancement efforts, multi-slip docks, hydrologic modifications, management needs and accomplishments



#### Water Column habitat -

#### **Priority Needs:**

Remove obstructions to anadromous fish passage

Improve water quality monitoring coverage

Develop regulatory tools to address cumulative impacts

Model water quality impacts using land use and other data



Status - Awaiting DENR review

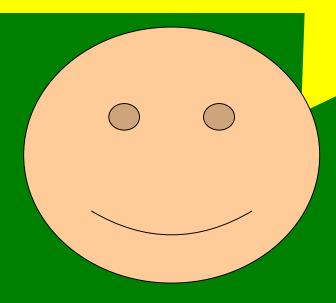
## Introduction status - DENR review of the chapter is complete

**Ecosystems Management and SHA** status - Chapter currently being modified

Recommendations status - Currently being compiled and written by the CHPP Team.



# In conclusion, the CHPP is all about...



### Clean Water ...



# Thriving Commercial Fisheries...



# Thriving Recreational Fisheries...



### Healthy Coastal Economy...



### Healthy Environment...



# A healthy North Carolina – it's up to all of us!





#### North Carolina Coastal Habitat Protection Plan

By Michael W. Street, Anne S. Deaton, William S. Chappell, and Peter D. Mooreside

N. C. Department of Environment and Natural Resources Division of Marine Fisheries Morehead City, NC 28557

February 2005



